

R E M A R K S

Claims 1-24 are pending. Claims 1-24 were rejected by the Examiner for the reasons noted below. Claims 10, 21 and 23 have been canceled. Without acquiescing to any rejection or objection made by the Examiner, but to further clarify one embodiment of the present invention, and hereby expressly reserving the right to prosecute the claims as originally filed (or similar claims), Applicants have amended Claims 1, 2, 12 and 13. The Examiner provides a number of rejections and we list them here in the order in which they are addressed:

1. The Examiner made objections to the drawings and specification of the present application.
2. Claims 10, 21, 23 and 24 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.
3. Claims 1-2, 4-9, 11-13 and 15-20 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Pat. No. 2,006,602 to Muster *et al.*
4. Claims 1-2, 5-9, 11-13, 16-20 and 22 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Pat. No. 5,195,757 to Dahll.
5. Claims 1, 6, 7, 9 and 22 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Pat. No. 5,496,047 to Goldswain *et al.*
6. Claims 1-3, 5-9, 11-14 and 16-20 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Pat. No. 5,873,576 to Dietle *et al.*
7. Claims 1-3 and 7-8 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Pat. No. 6,041,567 to Passeno.

1. THE DRAWINGS AND SPECIFICATION

A. The Drawings

The Examiner objected to the drawings as allegedly not showing the features of the various claims in violation of 37 C.F.R. § 1.83(a). Specifically, the Examiner made the following objections:

- a. Figures 5-7 do not show "a 'straight' outer peripheral edge (32) as recited in claims 10 & 21;" and
- b. The motion of the second surface noted in figure 7 is "disclosed as rotational on page 12 lines 6 & 7, not linear or oscillating as in claims 23 & 24."
(See Office Action Mailed 5/22/01, p. 2).

First, with respect to Claims 10, 21 and 23, without acquiescing to the Examiner's rejection, but to further the prosecution, and hereby expressly reserving the right to prosecute the claims as originally filed (or similar claims) in the future, Applicants have cancelled said claims. Thus, the Examiner's objection to the drawings regarding said claims has been rendered moot.

Second, with respect to Claim 24, Applicants submit that the objection is unfounded. Since a figure cannot show movement, Figure 7 needs to be examined in the context of the Specification. In the specification, there is support for a seal assembly having a seal produced between a first surface and a second surface, wherein the motion of said second surface is disclosed as "oscillating." Specifically, page 17, lines 7-10, of the Specification as filed disclose the following:

"It is not intended that the present invention be limited to the particular nature of the industrial application for the textured seals of the present invention. While textured seals are herein contemplated for circular and *oscillatory* motion, textured seals for linear motion are explicitly contemplated." (emphasis added).

Thus, the use of "oscillatory" in regard to the motion of the second surface of said seal in claim 24 is supported by the Specification. Therefore, the Examiner's objection to Figure 7 with respect to Claim 24 should be withdrawn.

B. The Specification

The Examiner also made the following objections regarding the Specification:

- a. "the specification at page 10, line 19 and page 11, line 3, uses the term 'D10 track seal,' but provides no reference (or any other descriptive passage to define the term so that it would have any useful meaning to one reading a patent issuing on this application" (See Office Action Mailed 5/22/01, pp. 2-3);
- b. "the detailed description fails to provide a proper antecedent basis for the subject matter in claims 10, 21, 23 & 24" allegedly in violation of 37 C.F.R. §§ 1.71 and 1.75(d)(1) (See Office Action Mailed 5/22/01, p. 3); and
- c. the abstract allegedly includes improper language. (See Office Action Mailed 5/22/01, pp. 2-3).

With respect to the use of the term "D10 track seal," Applicants believe that said term is known to those skilled in the art to which the present invention relates and, thus, no further definition for said term is required. However, without acquiescing to the Examiner's objection, Applicants have amended paragraphs of the Specification (*i.e.* to remove the term "D10 track seal") to further clarify one embodiment of the present invention, and have not added any new matter. (See pp. 3-4 and Appendix III of this Response).

With respect to the alleged failure of the Specification to provide an antecedent basis for the subject matter in claims 10, 21, 23 and 24, the cancellation (without prejudice) of claims 10, 21 and 23 in response to the objection to the drawings (above) renders the issue moot. With regard to Claim 24, Applicants reassert the above-discussed argument that the subject matter of Claim 24 (*i.e.* the assembly of Claim 22 wherein the motion of said second surface is oscillatory) is supported by the Specification as noted above. (See page 17, lines 7-10, of the Specification as filed).

With respect to the Examiner's objection to the language of the Abstract, Applicants have submitted a revised version of the Abstract to better reflect the proper language and format for an abstract of the disclosure. (See p. 2 & Appendix III of this Response).

II. THE CLAIMS ARE DEFINITE AS FILED

The Examiner rejected Claims 10, 21, 23 and 24 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. (See Office Action Mailed 5/22/01, p. 4). First, Applicants point out that to satisfy the requirements of 35 U.S.C. § 112, "[i]t is not necessary that the application describe the claim limitations exactly, . . . but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations. *In re Wertheim*, 191 U.S.P.Q. 90, 96 (C.C.P.A. 1976). Moreover, the Federal Circuit has stated that it "is entirely proper to use the specification to interpret what the patentee meant by a word or phrase in the claim." *E.I. du Pont de Nemours & Co. v. Phillips Petroleum Co.*, 849 F.2d 1430, 1433 (Fed. Cir. 1988).

Second, since Claims 10, 21 and 23 have been cancelled (without prejudice) in response to the objections to the drawings, the issue is moot.

Third, with respect to Claim 24, Applicants believe that the subject matter of said claim, as supported by the Specification, is definite under 35 U.S.C. § 112, second paragraph as filed (as noted above).

III. THE CLAIMS ARE NOVEL OVER THE MUSTER PATENT

The Examiner rejected Claims 1, 2, 4-9, 11-13 and 15-20 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Pat. No. 2,006,602 to Muster. The Applicants note, however, the reference does not teach all of the elements claimed. Therefore, the Examiner's rejection must fall.

In order for a prior art reference "to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference." *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990). Applicants argue that, in the present case, the Muster Patent is an improper basis for a rejection based on anticipation because the reference does not teach every element of the present invention as claimed.

Applicants focus their analysis on the independent claims 1 and 12. Claims 1 and 12 of the present invention are drawn (in pertinent part) to a seal comprising a mounting ring and a seal ring *attached to* said mounting ring. (See U.S. Pat. App. No. 09/617,556 to Hart *et al.*, pp. 18-19)(emphasis added). Figure 5 of the present application demonstrates one

embodiment of the present invention wherein said seal ring and said mounting ring are attached to one another (*i.e.* physically) thus forming a single unit. (*Id.* at Fig. 5).

The Examiner asserts that Figure 3 of the reference:

"shows a seal comprising: a mounting ring 18 and a seal ring 16. Seal ring 16 includes a contact surface (right radial surface of ring 16) comprising: an inner peripheral edge (radially inner edge); a curved and raised outer peripheral edge (rightmost peak at the center of the contact surface); and protrusions 12 interior to the outer peripheral edge."

(*See* Office Action Mailed 5/22/01, p. 5). However, the description of the elements disclosed in Figure 3 of the reference teaches "a ring 16 having on one edge a flat surface *to engage* the compressor 18 of the gland" (*See* U.S. Pat. No. 2,006,602 to Muster, p.2, col. 1, ll. 27-28)(emphasis added) - not an arrangement where a mounting ring is attached to a seal ring. Moreover, the reference teaches that compressor 18 is a part of the gland or stuffing box, as opposed to being attached to (or an integral part of) ring 16 (or packing ring 2) to form a single unit (in contrast to present invention). (*See id.* at Fig. 3, p. 1, col. 2, ll. 5-7 and p. 2, col. 1, ll. 16-30). Thus, since the Muster Patent does not teach a mounting ring attached to a seal ring as contemplated by the present invention, the reference does not disclose each and every element of the present invention as claimed. Therefore, for the reasons stated above, Claims 1 and 12 (and their corresponding dependent Claims 2, 4-9, 11, 13 and 15-20) are novel, under 35 U.S.C. § 102(b), over U.S. Pat. No. 2,006,602 to Muster.

IV. THE CLAIMS ARE NOVEL OVER THE DAHLL PATENT

The Examiner rejected Claims 1-2, 5-9, 11-13, 16-20 and 22 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Pat. No. 5,195,757 to Dahll. Applicants submit, however, the reference (once again) does not teach all of the elements claimed. Specifically, the Examiner asserts that:

"Fig. 2 shows a seal 10 comprising: a mounting ring 18 and a seal ring 14. Figs. 1-3 show that a seal ring 14 includes a contact surface 26 comprising: an inner peripheral edge 28; and protrusions 36 interior to the outer peripheral edge 28."

(*See* Office Action Mailed 5/22/01, p. 5)(citations omitted). However, the Dahll patent teaches that "[a]n insert 18 may be disposed within the body portion 14 and extended into the flange portion 16. The insert 18 is generally annular in shape with an L-shaped cross section." (*See*

U.S. Pat. No. 5,195,757 to Dahll, col. 2, ll. 40-43)(emphasis added). Thus, the Dahll patent does not teach a seal comprising a mounting ring and a seal ring attached to said mounting ring as found in Claims 1 and 12. (See U.S. Pat. App. No. 09/617,556 to Hart *et al.*, pp. 18-19). Therefore, under 35 U.S.C. § 102(b), said claims, and their corresponding dependent claims, should be passed to allowance. (See *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990); *In re Young*, 927 F.2d 588, 590 (Fed. Cir. 1991)).

V. THE CLAIMS ARE NOVEL OVER THE GOLDSWAIN PATENT

The Examiner rejected Claims 1, 6, 7, 9 and 22 under 35 U.S.C. § 102(b) as allegedly being allegedly by U.S. Pat. No. 5,496,047 to Goldswain *et al.* Applicants submit, however, the reference does not teach all of the elements claimed. For example, the textured features set forth in Claim 1 must be "positioned interior to said outer peripheral edge. This is explained in the Specification:

"it is believed that by placing the textured features *interior to the outer edge* of the contact surface of the seal, localized high pressure points *create a barrier to dirt*; moreover dirt that comes in contact with the textured features breaks up."

(See U.S. Pat. App. No. 09/617,556 to Hart *et al.*, p. 2, ll.). For example, Fig. 5 of the present invention illustrates that the position of the textured features of one embodiment of the present invention is entirely interior to the outer peripheral edge 32 of the contact surface 36 (*i.e.* the textured features do not contact the outer peripheral edge). (See *id.* at p. 12, ll. 9-11). In stark contrast to the embodiment claimed in Claim 1, Goldswain *et al.* teach that:

"[a]s illustrated in FIGS. 2 and 3, the face 33 of sealing ring 12 is provided with two sets of *spiral grooves* 40 and 41....Both sets of grooves *extend from the outer periphery of face 33 and are inclined rearwardly* relative to the direction of rotation D of shaft 10, so that upon rotation of shaft 10 and sealing ring 12, gas will be induced to flow into the grooves *from the outer periphery* of sealing ring 12."

(U.S. Pat. No. 5,496,047 to Goldswain *et al.*, col. 3, ll. 8-9, 11-16)(emphasis added). Thus, the Goldswain patent does not teach a contact surface (or first surface) comprising textured features (*e.g.* indentations) positioned interior to the outer peripheral edge as contemplated by one embodiment of the present invention (See, *e.g.*, Claims 1, 6, 7, 9 and 22).

VI. THE CLAIMS ARE NOVEL OVER THE DIETLE PATENT

The Examiner rejected Claims 1-3, 5-9, 11-14 and 16-20 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Pat. No. 5,873,576 to Dietle *et al.* Applicants submit, however, the reference does not teach all of the elements claimed. Specifically, the Examiner asserts that:

"Fig. 4C shows a seal comprising: a mounting ring 103 and a (*sic*) elastomeric seal ring 105. Fig. 4A shows that seal ring 105 includes a contact surface 108 comprising: an inner peripheral edge 113; a curved outer peripheral edge 123 that is raised (as at 114); and equidistant, identical protrusions 200 with recesses, the protrusion 200 being interior to the outer peripheral edge 123."

(See Office Action Mailed 5/22/01, p. 6). However, U.S. Patent 5,873,576 to Dietle *et al.* present a squeeze packing type rotary shaft seal. Dietle *et al.* incorporate "protuberances" (element 200) into some of the seals. These protuberances, however, "serve as compression springs in the axial direction and serve as radial bearings in the radial direction. The protuberances project axially from the circular body of the seal by the axial projection dimension 201 and project radially inward from the circular body of the seal by the radial projection dimension 203." (U.S. Pat. No. 5,873,576 to Dietle *et al.*, col. 9, ll. 46-51). These protuberance, therefore, are retentive compression elements not associated with the contact surface of the seal. Dietle *et al.*, therefore, are silent regarding a seal comprising a contact surface with an inner peripheral edge and an outer peripheral edge, said contact surface being characterized by textured features interior to said outer peripheral edge, wherein said textured features comprise protrusions extending outward from said contact surface.

VII. THE CLAIMS ARE NOVEL OVER THE PASSENO PATENT

Claims 1-3 and 7-8 were rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Pat. No. 6,041,567 to Passeno. Applicants submit, however, the reference cited does not teach all of the elements claimed. Specifically, the Examiner asserts that:

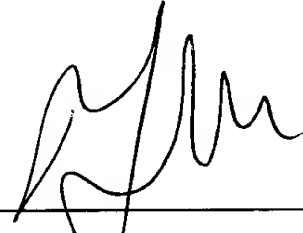
"Fig. 3 shows a seal comprising: a mounting ring 24 and a seal 10. Fig. 4 shows that seal ring 10 includes a contact surface (upper surface) comprising: an inner peripheral edge (left side); an outer peripheral edge (right side); and protrusions 16 (see also Fig. 1) with recesses 18 interior to the outer peripheral edge."

(See Office Action Mailed 5/22/01, p. 6). However, the Passeno patent provides a "formliner 10" that "is useful in manufacturing a decorative wall," said *decorative wall* comprising "a layer of concrete or other cementitious material 22 including a plurality of *spaced apart bricks or other decorative elements* 24 embedded in the cementitious material." (U.S. Pat. No. 6,041,567 to Passeno, col. 3, ll. 44-48)(emphasis added). Thus, the Passeno patent teaches that element 24 (*e.g.* a brick) is an element of a decorative wall made by *using* the "formliner" invention (along with some bricks and cement), rather than an element of the invention itself. (See *id.* at col. 1, ll. 41-49). Simply put, the "brick" taught by the Passeno patent is not equivalent to the mounting ring of said embodiment of the present invention. Therefore, under 35 U.S.C. § 102(e), the Passeno patent does not teach each and every element claimed.

CONCLUSION

The Applicant believes that the arguments and claim amendments set forth above traverse the Examiner's rejections and, therefore, request that these grounds for rejection be withdrawn for the reasons set above. Should the Examiner believe that a telephone interview would aid in the prosecution of this application, the Applicants encourage the Examiner to call the undersigned collect at 617.252.3353.

Dated: October 22, 2001



Peter G. Carroll

Registration No. 32,837

MEDLEN & CARROLL, LLP

220 Montgomery Street, Suite 2200

San Francisco, California 94104



APPENDIX I

MARKED-UP VERSION OF THE REWRITTEN CLAIMS PURSUANT TO 37 C.F.R. §
1.121(c)(1)(ii)

1. A seal, comprising:
 - a) a mounting ring;
 - b) a seal ring attached to said mounting ring, said seal ring comprising a contact surface, said contact surface comprising i) an inner peripheral edge, ii) an outer peripheral edge, and iii) textured features, wherein said textured features extend outward from said contact surface and are positioned interior to said outer peripheral edge.
2. The seal of Claim 1, wherein said textured features are [selected from the group consisting of] protrusions [and indentations].
12. A seal, comprising:
 - a) a mounting ring;
 - b) a seal ring attached to said mounting ring, said seal ring comprising a contact surface, said contact surface comprising i) an inner peripheral edge, ii) a raised outer peripheral edge, and iii) textured features, wherein said textured features extend outward from said contact surface and are position interior to said outer peripheral edge.
13. The seal of Claim 12, wherein said textured features are [selected from the group consisting of] protrusions [and indentations].